

vided with a sharp foliaceous carina along the middle of the under surface. Tarsi also all triquetrous; the first joint in fore legs expanded above into a sharp foliaceous crest and longer than the rest taken together; in the intermediate legs the first tarsal joint is equal to the last three, in the posterior to all the rest. Colour dark brown, with two pale longitudinal dorsal stripes: the legs and the horns variegated with luteous.

Male unknown.

Total length 5 inches 3 lines; head 2·5 lines; prothorax 2; mesoth. 11; metath. 10; abdom. 27 + 6 = 33; fore femur 15·5, tibia 18, tarsus 4·75; intermediate femur 9·75, tibia 9·75, tarsus 3·75; posterior femur 12·5, tibia 12·5, tarsus 4.

*Hab.* Perak, Malay peninsula. Communicated by Dr. G. E. Dobson.

This species belongs to the same group as *Lonchodes amaurops* and *uniformis*, Westw., *crawangensis*, De H., *verrucifer*, W.-M., and *brevipes* and *spinirollis*, G. R. Gray, &c., the last of which only it resembles in the peculiarly curved condition of the thighs.

April 13th, 1877.

XLIX.—*Diagnoses of new Species of Pleurotomidæ in the British Museum.* By EDGAR A. SMITH, Zoological Department.

THE various genera or groups of Pleurotomidæ require thorough revision; for at present they are badly described and their limits unrecognizable. The following species are placed provisionally in those sections of the family which are usually accepted, as I have not yet completed the investigation of the whole of the collection.

*Pleurotoma amicta.*

Testa solida, fusiformis, alba, epidermide tenui flavescente amicta, spiraliter lirata vel carinata, incrementique lineis oblique striata; anfract. 14–15, superiores tricarinati, prope suturam canaliculati (carina mediana duplici, supra et infra sculptura peculiari quasi corrugata ornata), inferiores 2–3 carinis 5–6 cincti, anfr. ultimus pluricarinatus; spira elongata, crassa, acuminata; apertura breviuscula, superne elongato-ovata in canali breviusculo leviterque obliquo et recurvo producta, longitudinis testæ  $\frac{2}{5}$  æquans, intus tenuiter lirata; labrum tenue, margine crenulatum, superne ad carinam duplicem anguste fissum; columella suboblique tortuosa, lævigata.

Long. 50 mill., diam. 15.

*Hab.* Sandwich Islands.

This species is remarkable for the numerous subequal keels or lirations, none of them being very large. A double one a little above the middle of the whorls has above and below it a very peculiar style of sculpturing, consisting of a kind of puckering of very short and oblique thread-like lines.

*Pleurotoma Nellieæ.*

Testa fusiformis, turrita, alba; anfr. 12, supra valde excavati, inferne angulati, infra suturam carinis duabus parvis contiguus cincti, et versus basim tuberculis longitudinaliter oblongis rectis (in anfr. ultimo ad 16) seriatim coronati, et striis spiralibus in excavatione sed præcipue inter tubercula ornati; anfr. ultimus infra tuberculorum seriem liris validis (superioribus 2 quam cæteræ majoribus) succinctus; apertura cum canali longitudinis testæ  $\frac{1}{2}$  æquans; labrum tenue, superne ad excavationem incisum; canalis elongatus leviter obliquus, paululum retrorsus.

Long. 31 mill., diam. 10.

*Hab.* Mauritius.

A species of charming form and purity, with whorls strongly excavated above, and a row of upright oblong tubercles encircling their bases, and two small contiguous keels around them just below the suture.

*Pleurotoma ceylonica.*

Testa fusiformis, griseo-albida, infra suturam maculis rufis variegata et circa anfract. ultimi medium flammulis elongatis inferne productis ornata; anfract.  $10\frac{1}{2}$ , primi  $1\frac{1}{2}$  vitrei, politi, convexi, cæteri paululum infra suturam concavi, cingulis spiralibus 6 granosis succincti (tertio a summo quam cætera minore), sutura distincta, fere canaliculata, discreti; anfr. ultimus cingulis ad 20 succinctus; columella levissime tortuosa; apertura intus fascia unica rufescente ornata, longitudinis testæ  $\frac{1}{2}$  haud æquans; labrum tenue, medio prominens, superne ad cingulum parvum anguste sed haud profunde incisum; canalis mediocriter elongatus, leviter recurvus.

Long. 19 mill., diam.  $6\frac{1}{2}$ .

*Hab.* Ceylon.

The entire surface of this species consists of spiral contiguous series of granules; the third row from the top of the whorls being smaller than the others produces a depression in that region.

*Pleurotoma acutigemmata.*

Testa cylindræo-fusiformis, fusco-flava; spira elongata, acuta; anfr. 12-13, medio carina maxima, acuta angulati, ad suturas carinati (carina superiore undulata), supra carinam maximam serie spirali granulorum acutorum cincti; anfr. ultimus paululum

infra medium contractus, carinis 12-13 et inter has striis spirilibus exilibus ornatus; apertura parva, basi angustata, longitudinis testæ  $\frac{1}{3}$  fere æquans, intus liris intrantibus 4-5 munita; labrum tenue, medio prominens, supra carinam maximam fissura latiuscula sed haud profunde incisum; columella leviter sinuata, callo tenuissimo induta; canalis mediocriter brevis, vix recurvus.

Long. 22 mill., diam. fere 7.

*Hab.* — ?

It is with considerable hesitation that I apply a name to this form, on account of its close relationship with *jubata*, Hinds. The chief differences are the narrower form, larger tubercles, and shorter canal, in the latter character bearing the same relation to *jubata* as *cingulifera* (Lamarck) does to his *albina*.

*Pleurotoma retusispirata.*

Testa elongato-subfusiformis, dilute purpurascens, ad apicem obtusum saturatior; anfract. 8, primi 2 (nucleus) vitrei, politi, globosi, sequentes 5 bicarinati (carina superiore duplici) liraque intercurrente nodosa cincti, inter carinas liris longitudinalibus confertis, tenuibus ornati, sutura canaliculata discreti; anfr. ultimus ad peripheriam rotundatus, deinde contractus caudam brevem formans, carinis ad 12 subæqualibus succinctus; apertura parva, longitudinis testæ  $\frac{1}{3}$  paulo superans, intus sulcata, sulcis costis externis respondentibus; labrum margine levissime incrassatum et crenulatum, paululum supra medium fissura parva incisum; columella medio plicis duabus minutis (superiore fere obsoleta) munita, ad basim dextrorsum curvata ac infra labrum descendens; canalis brevis, recurvus.

Long.  $7\frac{3}{4}$  mill., diam.  $2\frac{1}{2}$ .

*Hab.* — ?

The present species has for its nearest relative *P. violacea*, Hinds, from which it differs in form somewhat; the apex is blunter; and there is but a single nodose liration around the middle of each whorl, whereas Hinds's species possesses two.

*Pleurotoma cognata.*

Testa elongato-subfusiformis, luteo-albida, versus apicem dilute purpurea, carinis albis cincta, et inter carinas striis tenuibus longitudinaliter insculpta; spira perelongata, acuta, lateribus rectis; anfract. 12?, sutura carinata conjuncti; primi 4? (abrupti), sequentes 7 medio concavi, carinis duabus validis, remotis, et inter carinas liris 2 exilibus, cincti; anfr. ultimus basi contractus, caudam brevem formans, carinis ad 12 (quarum superiores 3 maximæ) cinctus; apertura alba, angusta, basi paululum contracta, longitudinis testæ  $\frac{1}{3}$  æquans; fissura minime profunda, inter carinas primam secundamque sita; labrum tenue, margine crenulatum; columella medio obsolete uniplicata; canalis brevis, obliquus, leviter reflexus.

Long. 24 mill., diam. 7.

*Hab.* Australia.

This species has a close relationship to *P. violacea*, Hinds, from which it differs, however, in colour, the number of carinations, and the more produced spire. It is still more nearly allied to *P. vallata*, Gould, from which it differs only in size and the presence of only one plication on the columella, whereas *P. vallata* possesses two. It may be merely the adult of the latter species.

*Pleurotoma antipodum.*

Testa breviter fusiformis, dilute carneo-fusca, transversim albo-carinata ac inter carinas longitudinaliter tenuissime lirata; anfract.  $7\frac{1}{2}$ , primi  $2\frac{1}{2}$  politi, læves, sequentes 4 superne ad suturam carina duplici et paululum infra medium altera longe maxima (supra et infra quam sunt liræ intercurrentes graciles 1-2) cincti; anfr. ultimus magnus versus basim contractus, carinæ præcipuis ad 9 (quarum ea paululum supra medium longe maxima) aliisque (circiter 6) minoribus circa caudam succinctus; apertura oblonga inferne contracta, intus lævis, longitudinis testæ  $\frac{1}{2}$  fere æquans; labrum tenue, margine haud crenulatum supra carinam maximam late sed minime profunde incisum; columella tortuosa, callosa, nitens; canalis brevis, recurvus.

Long. 10 mill., diam. 4.

*Hab.* New Zealand.

This species, which consists of but few whorls, is chiefly remarkable for its short fusiform shape and the prominent keel around the whorls a little below the centre.

*Pleurotoma multiseriata.*

Testa acuminato-ovata, lutea (interdum purpureo-fusca); anfract. 10, primi 2 læves, politi, cæteri planiusculi, infra suturam tuberculorum parvorum serie duplici, infra eam liris spiralibus 1-2 gracilibus, infra quas circa medium tuberculorum majorum serie duplici secunda, et infra hanc liris 1-2 ex nodulis parvis factis succincti; anfr. ultimus liris nodosis circiter 15 ornatus; apertura liris tenuibus 5-6 intrantibus, haud ad labri marginem extendentibus, munita, longitud. totius  $\frac{4}{5}$  adæquans; columella fere recta; labrum tenue, paululum infra suturam distincte incisum; canalis perbrevis, recurvus.

Long. 15 mill., diam. 5.

*Hab.* Ceylon, Persian Gulf, and China Seas.

Sometimes the rows of granules on the body-whorl are alternately larger and smaller.

*Pleurotoma albofusiata.*

Testa oblonga, subcylindracea, rubro-castanea, zona unica alba infra carinam undulatam ornata; anfract. 12, convexiusculi,

medio angulati, carinis tribus cincti, suprema juxta suturam duplica, mediana maxima nodulis acutis 9 instructa, infima prope suturam sita, inter carinas spiraliter striati; anfr. ultimus infra carinam maximam 12-carinatus, carinis inferioribus 5 parvis circa caudam sitis; apertura parva, intus liris tenuibus 5-6 ornata, longitudinis totius  $\frac{1}{3}$  haud æquans; collumella callo tenui induta, superne juxta suturam tuberculata; labrum tenue, ad carinam mediocriter incisum; canalis brevis, recurvus.

Long. 22 mill., diam. 8.

*Hab.* Sandwich Islands.

The central keel is formed of sharp, compressed, transverse tubercles. The space between it and the lower keel is white.

*Pleurotoma zealandica.*

Testa valida, ovato-turrita, carneo-albida; spira acuminata, gradata, apice fuscescens; anfract. 10, primi  $2\frac{1}{2}$  politi, vitrei, convexi, cæteri convexiusculi, superne carinati et decliviter complanati (gradibus radiatim fortiter striatis), sulcis 2-3 (supremo maximo, oblique fortiter striato) insculpti; anfr. ultimus magnus, aliquanto inflatus, basin versus contractus, sulcis circiter 12 fortibus, longitudinaliter striatis, ornatus; apertura fusca, ampla; columella fuscescens, medio arcuata, inferne obliqua, cum labro canalem brevem leviter recurvum constituens; cauda carina parva, fusca circumdata; incisura latiuscula, haud profunda, paululum supra labri medium sita.

Long. 23 mill., diam. supra labrum 9.

*Hab.* New Zealand.

This species is remarkable for the tabulated whorls, the tabulations being very strongly radiately striated, and sometimes furnished with a spiral liration, and the conspicuous sulcations encircling the body-whorl. The slit in the labrum is situated just below the broad furrow which grooves the upper part of the whorls.

*Pleurotoma (Drillia) chocolatum.*

Testa fusiformis, nitens, saturate purpureo-fusca, zonis angustis tribus modo supra costas parentibus ornata; anfract. 12, primi 2-3 convexi, laves, cæteri superne concavi, deinde convexiusculi, infra excavationem costis rotundatis paucis (in anfr. ultimo 9 ad peripheriam obsoletis) instructi, striis exilibus paucis spiralibus, sed haud in concavitate, insculpti; anfr. ultimus infra peripheriam valde angustatus, ubique transversim striatus vel liratus; apertura intus purpureo-fusca, longitudinis testæ ad  $\frac{2}{5}$  æquans; labrum tenue, medio extans; sinus mediocriter profundus; canalis obliquus, recurvus.

Long. 21 mill., diam. 7.

*Hab.* Goza Harbour, Japan.

The dark chocolate-colour, with the three yellowish spots



which are slightly nodulous on each rib, and the smooth concavity at the upper part of the whorls are very distinctive characters.

*Pleurotoma (Drillia) subochracea.*

Testa elongata, fusiformis, turrita, rubido-ochracea; anfract. 13, supra valde excavati, deinde convexi, infra excavationem costis plicosis (in anfr. ultimo 14 fere ad basim continuis) instructi, liris tenuibus supra costas subnodosis et albis (in anfr. penult. 5, in ultimo circiter 22) et striis gracillimis numerosis incrementique lineis ornati; sutura marginata; apertura carneo-alba, superne ovata, inferne in canalem mediocriter elongatum producta, longitudinis totius  $\frac{3}{4}$  adæquans; labrum extra costa validissima incrassatum, in excavatione sinuatum; columella tortuosa, callosa, superne tuberculo parvo munita; canalis recurvus. Long. 39 mill., diam. 11.

*Hab.* China seas (probably).

This handsome shell is very characteristically coloured. The reddish-ochre colour is uniform, except where the transverse lirations cross the ribs or plications, where they are white and slightly nodulous. The excavation is well defined by the sudden termination of the ribs.

*Pleurotoma (Drillia) mindanensis.*

Testa elongate ovato-fusiformis, turrita, sordide albida, inter costas supra ac infra fusco maculata; anfractus 12, primi 3 convexi, læves, politi, cæteri superne leviter excavati, medio angulati, deinde concaviusculi, propeque suturam aliquanto constricti, costis perobliquis flexuosis suturas attingentibus (in anfr. ultimo circiter 13 versus basim obsolete) instructi, et liris 4-5 gracilibus supra costas prominentioribus subnodulosisque succincti; anfract. ultimus ad peripheriam obtuse angulatus, albidoque zonatus, inferne fuscescens, liris numerosis ornatus; apertura longitudinis totius  $\frac{3}{4}$  æquans; labrum tenue, margine crenulatum, medio prominens, prope suturam valde incisum; columella paululum contorta, superne tuberculata; canalis leviter recurvus. Long. 29 mill., diam. 9.

*Hab.* Island of Mindanao, Philippine Islands.

The ribs in this species are flexuous and very oblique and continuous up the spire; but whether this latter be a constant character I cannot say, as but a single example is at hand. The obtuse angulation of the body-whorl at the periphery gives it a squarish aspect.

*Pleurotoma (Drillia) rotundicostata.*

Testa acuminato-fusiformis, apice acuto, dilute fuscescens, epidermide tenui flavo-olivacea amicta; anfr. 12, convexiusculi, su-

perne paululum constricti, costis rotundatis validis, superne versus suturam attenuatis (in anfr. ultimo 7 ad peripheriam evanidis) instructi, sutura simplici undulata sejuncti, liris spiralibus 3-4 supra costas aliquanto incrassatis striisque aliis cincti; anfract. ultimus infra peripheriam valde constrictus, in caudam elongatam productus, ubique spiraliter liratus; apertura angusta, longit. totius  $\frac{3}{4}$  adæquans, intus fuscescens; sinus minime profundus; canalis elongatus, recurvus.

Long. 21 mill., diam. 6.

*Hab.* ——— ?

The few roundish ribs are broadest at the lower ends and gradually diminish upwards. The operculum is unguicular, with a groove running lengthwise from the apex to the superior margin.

*Pleurotoma (Drillia) latisinuata.*

Testa fusiformis, turrita, dilute luteo-fuscescens (interdum omnino nivea); anfract. 12, superne excavati, medio carinati et angulati, infra angulum oblique plicati, plicis haud ad suturas extendentibus (in anfr. ultimo circiter 14 fere obsoletis), liris spiralibus elevatis albis (in anfr. superioribus 3-4, in ultimo ad 12) suprema quam cæteræ majore in medio anfractuum, et striis gracilibus inter liras ornati; apertura lata, sordide albida, longitudinis testæ fere  $\frac{1}{2}$  æquans; labrum superne valde et latissime sinuatum, paululum post marginem costa tuberosa incrassatum; columella callo tenui induta, prope suturam tuberculata; canalis mediocriter elongatus, leviter recurvus.

Long. 50 mill., diam. 35.

*Hab.* China.

This species is allied to *P. flavidula*, Lamk. The upper half of each whorl is nearly smooth, as the plications extend scarcely beyond the central large spiral liration which marks the angulation of the whorls. Sometimes, this lira being double, the whorls are less acutely angular.

*Pleurotoma (Drillia) nodilirata.*

Testa fusiformis, turrita, albido-cornea; anfract. 11, superne concave excavati (excavatione arcuate striata), medio obtuse angulati, infra suturas carina tenui marginati, infra excavationem costis obliquis modice validis (in anfr. ultimo circiter 12 basi fere continuis) instructi, liris spiralibus præcipue super costas elevatis (in anfr. superioribus 5-6, in ultimo circiter 20 subnodulosis) cincti; anfr. ultimus basi attenuatus; apertura angusta, longitudinis totius fere  $\frac{1}{2}$  æquans; columella recta, crasse callosa; labrum extra valde incrassatum; sinus modicus; canalis angustus, reflexus.

Long. 25 mill., diam. 8.

*Hab.* Philippine Islands.

The spiral lirations in this species are particularly prominent, especially upon the ribs, where in the body-whorl they are developed into little nodules.

*Pleurotoma (Drillia) variabilis.*

Testa clavate fusiformis, subrimata, fusco-lutea, rubro-fusco notata præcipue infra suturam; anfract. 12, supra concavi, medio angulati, infra excavationem costis subtubercularibus inferne versus suturas fere obsolete (in anfr. ult. 10 haud ad basim attingentibus) instructi, liris spiralibus 3-4 (in anfr. ultimo circiter 15 subgranosis) lineisque aliis tenuibus cincti; anfract. ultimus subquadratus, basi modo paululum constrictus; apertura intus lævis pallide rosacea, longitudinis totius  $\frac{2}{5}$  adæquans, callo superne tuberculoso induta; canalis brevissimus, recurvus; sinus latus profundiusculus; labrum extra incrassatum.

Long. 34 mill., diam. 10.

*Var.* Testa alba, fusco sparse punctata.

*Hab.* — ?

This species is remarkable for the squarish body-whorl and the very short canal and aperture. The lirations, where they traverse the plications, are whitish.

*Pleurotoma (Drillia) Atkinsonii.*

Testa ovato-fusiformis, flavescens, ad apicem fusca, inter costas roseo-fusco maculata; anfract. 11, convexi, superne paululum excavati, superne ad suturam oblique crenulati, costis rotundatis, supra fere obsolete (in anfr. ultimo 8-9 basi desinentibus) instructi, liris validis supra costas leviter incrassatis (in anfr. superioribus 6-7, in ultimo circiter 16) succincti, undique incrementi lineis obliquis ornati; apertura intus saturate fusca, longitudinis totius  $\frac{6}{13}$  æquans; labrum extra costa ultima maxima incrassatum, intus roseo-album; columella livido-fusca, callo tenui amicta, supra tuberculo parvo munita; sinus mediocris; canalis brevis, recurvus, aurantiaco-fusco tinctus.

Long. 26 mill., diam. 8.

*Hab.* — ?

The lines of growth in this species are particularly apparent. The ribs on the body-whorl are slightly nodose at their lower part, where the spiral lirations cross them.

*Pleurotoma (Drillia) angusta.*

Testa angusta, elongata, fusiformis, dilute luteo-fusca, apice caudaque alba (interdum omnino alba); anfract. 9, apicales magni, rotundati, cæteri convexi, infra suturam leviter concavi, costis confertis tuberculis obliquis superne suturas vix attingentibus (in anfr. ultimo 15, paululum infra peripheriam desinentibus) instructi, sulcis spiralibus (in anfr. superioribus 5-6, in ultimo circiter 16) insculpti; apertura parva, longitudinis testæ  $\frac{1}{3}$  ad-



perne paululum constricti, costis rotundatis validis, superne versus suturam attenuatis (in anfr. ultimo 7 ad peripheriam evanidis) instructi, sutura simplici undulata sejuncti, liris spiralibus 3-4 supra costas aliquanto incrassatis striisque aliis cincti; anfract. ultimus infra peripheriam valde constrictus, in caudam elongatam productus, ubique spiraliter liratus; apertura angusta, longit. totius  $\frac{3}{4}$  adæquans, intus fuscescens; sinus minime profundus; canalis elongatus, recurvus.

Long. 21 mill., diam. 6.

*Hab.* — ?

The few roundish ribs are broadest at the lower ends and gradually diminish upwards. The operculum is unguicular, with a groove running lengthwise from the apex to the superior margin.

*Pleurotoma (Drillia) latisinuata.*

Testa fusiformis, turrita, dilute luteo-fuscescens (interdum omnino nivea); anfract. 12, superne excavati, medio carinati et angulati, infra angulum oblique plicati, plicis haud ad suturas extendentibus (in anfr. ultimo circiter 14 fere obsoletis), liris spiralibus elevatis albis (in anfr. superioribus 3-4, in ultimo ad 12) suprema quam cæteræ majore in medio anfractuum, et strii gracilibus inter liras ornati; apertura lata, sordide albida, longitudinis testæ fere  $\frac{1}{2}$  æquans; labrum superne valde et latissime sinuatum, paululum post marginem costa tuberosa incrassatum; columella callo tenui induta, prope suturam tuberculata; canalis mediocriter elongatus, leviter recurvus.

Long. 50 mill., diam. 35.

*Hab.* China.

This species is allied to *P. flavidula*, Lamk. The upper half of each whorl is nearly smooth, as the plications extend scarcely beyond the central large spiral liration which marks the angulation of the whorls. Sometimes, this lira being double, the whorls are less acutely angular.

*Pleurotoma (Drillia) nodilirata.*

Testa fusiformis, turrita, albido-cornea; anfract. 11, superne concave excavati (excavatione arcuate striata), medio obtuse angulati, infra suturas carina tenui marginati, infra excavationem costis obliquis modice validis (in anfr. ultimo circiter 12 basi fere continuis) instructi, liris spiralibus præcipue super costas elevatis (in anfr. superioribus 5-6, in ultimo circiter 20 subnodulosi) cincti; anfr. ultimus basi attenuatus; apertura angusta, longitudinis totius fere  $\frac{1}{2}$  æquans; columella recta, crasse callosa; labrum extra valde incrassatum; sinus modicus; canalis angustus, reflexus.

Long. 25 mill., diam. 8.

*Hab.* Philippine Islands.

The spiral lirations in this species are particularly prominent, especially upon the ribs, where in the body-whorl they are developed into little nodules.

*Pleurotoma (Drillia) variabilis.*

Testa clavate fusiformis, subrimata, fusco-lutea, rubro-fusco notata præcipue infra suturam; anfract. 12, supra concavi, medio angulati, infra excavationem costis subtubercularibus inferne versus suturas fere obsolete (in anfr. ult. 10 haud ad basim attingentibus) instructi, liris spiralibus 3-4 (in anfr. ultimo circiter 15 subgranosis) lineisque aliis tenuibus cincti; anfract. ultimus subquadratus, basi modo paululum constrictus; apertura intus lævis pallide rosacea, longitudinis totius  $\frac{2}{5}$  adæquans, callo superne tuberculoso induta; canalis brevissimus, recurvus; sinus latus profundiusculus; labrum extra incrassatum.

Long. 34 mill., diam. 10.

Var. Testa alba, fusco sparse punctata.

Hab. — ?

This species is remarkable for the squarish body-whorl and the very short canal and aperture. The lirations, where they traverse the plications, are whitish.

*Pleurotoma (Drillia) Atkinsonii.*

Testa ovato-fusiformis, flavescens, ad apicem fusca, inter costas roseo-fusco maculata; anfract. 11, convexi, superne paululum excavati, superne ad suturam oblique crenulati, costis rotundatis, supra fere obsolete (in anfr. ultimo 8-9 basi desinentibus) instructi, liris validis supra costas leviter incrassatis (in anfr. superioribus 6-7, in ultimo circiter 16) succincti, undique incrementi lineis obliquis ornati; apertura intus saturate fusca, longitudinis totius  $\frac{6}{13}$  æquans; labrum extra costa ultima maxima incrassatum, intus roseo-album; columella livido-fusca, callo tenui amicta, supra tuberculo parvo munita; sinus mediocris; canalis brevis, recurvus, aurantiaco-fusco tinctus.

Long. 26 mill., diam. 8.

Hab. — ?

The lines of growth in this species are particularly apparent. The ribs on the body-whorl are slightly nodose at their lower part, where the spiral lirations cross them.

*Pleurotoma (Drillia) angusta.*

Testa angusta, elongata, fusiformis, dilute luteo-fusca, apice caudaque alba (interdum omnino alba); anfract. 9, apicales magni, rotundati, cæteri convexi, infra suturam leviter concavi, costis confertis tuberculis obliquis superne suturas vix attingentibus (in anfr. ultimo 15, paululum infra peripheriam desinentibus) instructi, sulcis spiralibus (in anfr. superioribus 5-6, in ultimo circiter 16) insculpti; apertura parva, longitudinis testæ  $\frac{1}{3}$  ad-

*Pleurotoma (Drillia) Prattii.*

Testa fusiformis, turrata, dilute fulva; anfract. 10, superne excavati, medio rotundate angulati, costis obliquis rotundis (in anfr. ult. 9 ad peripheriam sensim desinentibus) instructi, ubique spiraliter exiliter striati, sutura leviter marginata; anfr. ultimus magnus, post labrum valde tuberoso incrassatus, striis spiralibus magis profundis incrementique lineis ornatus; apertura angustiuscula, carnea, longitudinis totius fere  $\frac{1}{2}$  æquans; sinus magnus, latus, prope suturam situs; canalis leviter obliquus et recurvus; columella tuberculo calloso parvo superne munita.  
Long. 27 mill., diam. 8.

*Hab.* — ?

The few rounded oblique ribs, which do not extend to the suture above, and the uniform bright reddish brown or fulvous colour are the characters which chiefly distinguish this species.

*Pleurotoma (Drillia) excavata.*

Testa fusiformis, turrata, lutescens; anfr. 9, primi 2 læves, cæteri superne valde oblique excavati, medio obtuse angulati, longitudinaliter costati, costis ad excavationem finitis (in anfr. ultimo 14 infra medium desinentibus), liris spiralibus (iis in excavatione exilioribus quam inferiores) supra costas incrassatis cincti; apertura longit. totius ad  $\frac{9}{20}$  æquans; sinus mediocriter profundus, proxime ad suturam situs; canalis paululum elongatus, recurvus; columella rectiuscula, callo tenui amicta.  
Long. 20 mill., diam.  $6\frac{1}{2}$ .

*Hab.* — ?

The ribs do not extend into the excavation or concave depression at the upper part of the whorl; and the five or six lirations encircling it are finer than those below it.

*Pleurotoma (Drillia) concolor.*

Testa elongata, fusiformis, turrata, rubido-fusca (interdum purpureo-fusca); anfract. 13, primi 2 convexi, læves, cæteri superne concavi, medio angulati, costis longitudinalibus supra versus suturas obsoletis (in anfr. ultimo circiter 11 basi obsoletis) instructi, et in anfractu dimidium inferius liris elevatis spiralibus 3 (in anfract. ult. ad 6) supra costas nodulosis clathrati, ubique striis spiralibus gracillimis incrementique lineis flexuosis ornati; sutura undulata, aliquanto incrassata; apertura angusta, longitudinis testæ ad  $\frac{1}{3}$  æquans; labrum tenue, margine crenulatum, intus læve, superne paululum infra suturam late profundeque incisum; columella subrecta, callo tenui induta, tuberculo parvo juxta suturam munita; canalis latiusculus, leviter recurvus.  
Long. 43 mill., diam. 11.

*Hab.* Moluccas and China.

This species is of uniform reddish or purplish brown; the upper half of the whorls is concave and devoid of spiral lirations, which exist only on the lower portion.

*Pleurotoma (Drillia) digna.*

Testa ovato-fusiformis, sub epidermide tenni flavo-olivacea cæruleo-cinerea; anfractus 9, leviter convexi, costis obliquis superne nodosis 13-14 (in anfr. ultimo versus labrum subobsoletis et prope peripheriam evanidis) instructi; anfr. ultimus sulcis angustis pluribus circa basim insculptus; apertura fusca, albobifasciata, longitudinis totius quam  $\frac{1}{2}$  paulo minor; labrum tenue, ad marginem album, superne minime profunde sinuatum; columella versus basim callo albo induta; canalis breviusculus, latus. Long. 26 mill., diam. 9.

*Hab.* California.

The colour beneath the epidermis of a specimen in good condition is a bluish ash; but in worn examples the upper part of the whorls and the middle of the body-whorl are broadly banded with brown; and these bands are seen in the aperture of all specimens. A slight furrow or depression extends around the whorls a little below the suture, and, traversing the ribs, causes their upper ends to be nodulous. The sinus in the labrum is situated at the termination of this depression.

This species belongs to a group of Pleurotomidæ which includes several Californian forms, viz.:—*P. inermis*, Hinds; *incisa*, Carpenter; *penicillata*, Cpr.; *mæsta*, Cpr.; *aurantia*, Cpr.; *erosa*, Schrenk; and *lirata*, A. Adams.

*Pleurotoma (Clionella) Bornii.*

Testa elongata, subturrita, albida, strigis rufis inter costas ornata, epidermide cornea olivacea induta; anfract. 8? (apice abrupto), planiusculi, paululum infra suturam linea impressa bipartiti, leviterque constricti, longitudinaliter costati, costis interstitia æquantibus, numerosis (in anfr. ultimo ad 18), striis spiralibus exilibus obsolete striati; apertura ovata, longitudinis totius  $\frac{1}{3}$  æquans, superne acuminata, basi canali brevissimo leviter recurvo terminata; columella medio leviter arcuata, vix tortuosa; cauda brevis, carina circumdata; labrum tenue, superne paululum infra suturam haud profunde sinuatum.

Long. 40 mill., diam. 12.

*Hab.* Cape of Good Hope.

This species is closely allied to the well-known *P. sinuata*, Born. It differs, however, in being covered with a paler epidermis, in having below the suture a raised girdle formed by a depression or constriction around the whorls, and also in the style of coloration.

*Pleurotoma (Clionella) Krausii.*

Testa turrata, albida, maculis punctulisque purpureo-fuscis præcipue super anfractuum dimidium superius variegata, epidermide tenuissima viridi-olivacea induta; anfract. 9-10, medio excavati, deinde angulati, superne læves, inferne costis subnodosis (in anfr. ultimo ad 12) instructi, striis spiralibus exilibus ubique ornati, sutura undulata marginata discreti; apertura albida, fusco maculata, longitudinis testæ  $\frac{2}{5}$  æquans; labrum tenue, paululum infra suturam leviter sinuatum; canalis brevis, obliquus; columella arcuata.

Long. 29 mill., diam. 10.

*Hab.* Cape of Good Hope.

This species is easily recognized by the short subnodulous ribs, which occupy scarcely the lower half of the whorls, the depression round the middle and the raised band above, and the manner of coloration, the purplish-brown maculations being somewhat flexuous in the depression. Its nearest relation is *P. semicostata*, Kiener.

*Pleurotoma (Clionella) bipartita.*

Testa elongate ovato-fusiformis, sub epidermide tenui griseo-olivacea dilute rubescens vel albida, lineis gracillimis confertis dilute fuscis longitudinaliter picta, et strigis obliquis subremotis fuscis infra suturam ornata; anfract. 10, plani, medio sulco spirali bene definito minime profundo sed latiusculo exsculpti, infra sulcum plicis nodosis obliquis (in anfr. ultimo fere obsoletis, in superioribus ad 12) instructi; anfract. ultimus magnus, longitudinis totius  $\frac{4}{7}$  æquans, infra peripheriam striis spiralibus paucis circiter 7-8 cinctus; apertura intus dilute purpureo-carnea, longitudine testæ  $\frac{2}{5}$  æquans, basi late canaliculata; columella arcuata, superne callo nodulosa, parvo, munita; labrum tenue, ad sulcum aliquanto profunde scissum.

Long. 34 mill., diam. 12.

*Var.* Testa anfr. ultimi costis obliquis haud obsoletis sed ad peripheriam desinentibus.

*Hab.* South Africa, Port Elizabeth.

This very distinct form is peculiar for the manner in which the whorls are divided into three parts. Below the suture exists a raised band, whitish, streaked obliquely with brown; below this runs a shallow furrow nearly as broad as the fillet; and again below the sulcus are oblique subnodulous ribs which occupy nearly half the whorl, these ribs disappearing almost entirely in the body-whorl.

*Pleurotoma (Clionella) subventricosa.*

Testa ovato-fusiformis, carneo-albida, zona lata irregulari circa anfractuum partem inferiorem ornata; anfract. 8, convexiusculi,



superne paululum infra suturam sulco angusto leviter constricti, infra sulcum costis subrotundatis (in anfr. ultimo flexuosis inferne desinentibus circiter 14) instructi, striis spiralibus remotis paucis (in anfr. ult. ad 12) insculpti; anfr. ultimus subventricosus, testæ  $\frac{5}{8}$  æquans; apertura intus fuscescens, basi oblique lateque canaliculata, longitudinis totius  $\frac{4}{9}$  æquans; labrum tenue, superne ad sulcum leviter sinuatum; columella medio arcuata, basi obliqua. Long. 26 mill., diam. 10.

*Hab.* South Africa.

This shell, although without a locality attached, in all probability inhabits the Cape of Good Hope, having with some species from there such a general resemblance as to warrant the supposition; the brown band occupies about half the whorls, not quite reaching the upper ends of the ribs.

*Pleurotoma (Clionella) platystoma.*

Testa elongata, turrita, flavescens (interdum pallide roseo-fusca), superne juxta suturam et mediane inter nodulos dilute fusco notata; anfract. 7, primi 2 convexi, papillares, læves, cæteri superne ad suturam margine incrassato leviter nodoso, deinde concavi, medio angulati, infra angulum plani, circa medium nodulorum parvorum obliquorum (ad 13) serie unica ornati, spiraliter striati, striis subdistantibus 10–12, in anfr. ultimo circiter 24, incrementi lineis obliquis striati; apertura lata, subquadrata, longitudinis testæ totius fere  $\frac{5}{13}$  æquans; sinus latus, mediocriter profundus; columella callo tenui induta; canalis apertus, brevissimus.

Long. 13 mill., diam. 5.

*Hab.* Cape of Good Hope.

The two apical whorls are remarkably large. The faint nodules at the top of the whorls and the more distinct ones around the middle have faint dots of brown between them; and the spiral striæ are interrupted by them.

L.—On *Rupertia stabilis*, a new *Sessile Foraminifer* from the North Atlantic. By G. C. WALLICH, M.D., Surgeon-Major Retired List, H.M. Indian Army.

[Plate XX.]

It will, I think, be conceded that a special degree of interest attaches to the Foraminifer about to be described, when I state that it not only represents a well-marked new genus, but is one of the very few forms as yet discovered whose peculiarities of structure point to their being sessile inhabitants of the bed of the ocean.